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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/577,306

05/24/00

BAKKER

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EXAMINER

UNILEVER

PATENT DEPARTMENT

45 RIVER ROAD

EDGEWATER NJ 07020

SORKIN, D

ART UNIT

PAPER NUMBER

1723

DATE MAILED:

04/24/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/577,306

Applicant(s)

BAKKER ET AL.

Examiner

David L. Sorkin

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1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 13 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5 and 8.
- 18) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 1-12, in Paper No. 10 is acknowledged.

Drawings

2. The lack of drawings is objected to under 37 CFR 1.81 and 1.83(a). Drawings must show every feature of the invention specified in the claims. No drawings have been submitted. All claimed features must be shown or canceled from the claims. No new matter should be entered.

Specification

3. The disclosure is objected to because of references to "Figure 1" although no drawings have been submitted.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent

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protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 1 recites the broad recitation "28-45", and the claim also recites "32-42" which is the narrower statement of the range/limitation. Claims 2 and 9 are rendered indefinite by the word "preferably", because it is unclear if the limitations following this claim are required elements of the claimed extruder. Claim 5 recites the broad recitation "2-10", and the claim also recites "2-5" and also "2-4" which is the narrower statement of the range/limitation. Claim 6 recites the broad recitation "under 0.2", and the claim also recites "over 0.1" which is the narrower statement of the range/limitation. Claim 8 recites the broad recitation "28-45", and the claim also recites "32-42" which is the narrower statement of the range/limitation. Claim 8 recites the broad recitation "2-10", and the claim also recites "2-5" and also "2-4" which is the narrower statement of the range/limitation.

7. Many of the screw parameter definitions provided in the specification and are meaningless without a barrel, however, no barrel is recited in the claims. For example

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claims 5 and 8 recite ranges of Lt/De, and Lt is defined as the length of the screw which is in contact with the barrel. If no barrel is being claimed, this limitation is meaningless.

Claim Rejections - 35 USC § 102

8. 3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-3, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Fels et al. (US 5,345,781). Regarding claim 1, Fels ('781) discloses an extruder comprising an extruding screw having 2 thread starts (see fig. 5) and a pitch angle of 20-30 degrees (see col. 16, lines 14-15), which overlaps the claimed range 28-45 degrees. The overlapped portion of the claimed range, 28-30 degrees, is therefore anticipated. Regarding claims 2 and 3, a cooling circuit with ammonia is disclosed (see col. 3, lines 45-47). Regarding claim 6, the H/Wc ratio is under 0.2 (see col. 16, lines 12-13).

10. Claims 1 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Bushman et al. (US 5,651,305). Regarding claim 1, Bushman ('305) discloses an extruder comprising an extruding screw having 2-10 thread starts (see col. 4, lines 22-24) which overlaps the claimed range of 2-6 starts and a pitch angle of 45 degrees (see col. 3, lines 9-11). Regarding claim 7, the extruder is a single screw extruder (see fig. 1).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-3, 5, 6 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fels ('781). Regarding claim 1, Fels ('781) discloses an extruder comprising an extruding screw having 2 thread starts (see fig. 5) and a pitch angle of 20-30 degrees (see col. 8, lines 22-23 and col. 16, lines 14-15), which overlaps the claimed range 28-45 degrees. In cases where claimed ranges "overlap or lie inside ranges disclosed by the prior art a *prima facie* case of obviousness exists" (*In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). Regarding claims 2 and 3, a cooling circuit with ammonia is disclosed (see col. 3, lines 45-47). Claim 5 fails to further structurally limit claim 1, because a barrel is not positively recited. Regarding claim 6, the H/Wc ratio is under 0.2 (see col. 16, lines 12-13). Regarding claim 8, Fels ('781) discloses an extruder comprising an extruding screw having a pitch angle of 20-30 degrees (see col. 16, lines 14-15), which overlaps the claimed range 28-45 degrees. Stipulation of a Lt/De ratio does not further structurally limit the claim because no barrel is positively recited. Regarding claims 9 and 10, a cooling circuit with ammonia is disclosed (see col. 3, lines 45-47).

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13. Claims 5, 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bushman ('305). Claim 5 fails to further structurally limit claim 1, because a barrel is not positively recited, however, the Lt/De ratio is depicted as being within the claimed range in fig. 1. Regarding claim 8, Bushman ('305) discloses an extruder comprising an extruding screw having a pitch angle of 45 degrees (see col. 3, lines 9-11). Stipulation of a Lt/De ratio does not further structurally limit the claim because no barrel is positively recited. Regarding claim 12, the extruder is a single screw extruder (see fig. 1).

14. Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fels ('781) in view of Bushman ('305). The extruder of Fels ('781) discussed above with regard to claims 3 and 10 includes ammonia coolant (see col. 3, lines 45-47). However, the screw fails to comprise 3-4 thread starts. Bushman ('305) teaches an extruder screw comprising 3-4 thread starts (see co. 2, lines 53-54). Bushman ('305) further teaches that increasing the number of thread starts increases efficiency of food product processing (see col. 2, lines 33-41). Therefore, it is considered that it would have been obvious to one of ordinary skill in the art to have increased the number of thread starts of Fels ('781) to increase efficiency as taught by Bushman ('305).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David L. Sorkin whose telephone number is 703-308-1121. The examiner can normally be reached on 7:30 - 5:00 Mon.-Thur., Alternate Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on 703-308-0457. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7718 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

David Sorkin

David Sorkin

April 20, 2001

Walker
W. L. WALKER
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